

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010541**Date Inspected:** 05-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Liu Fawen**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG) & Tower Com**Summary of Items Observed:**

On this date Caltrans Office of Structural Materials Quality Assurance Inspector, Sandeep Kumar (QA) was present during the times noted above for observations relative to the work being performed.

BAY 2

This QA Inspector observed the following work in progress:

Submerged Arc Welding (SAW):

Weld joint # 012 located on Longitudinal Diaphragm LD3023 – 001. Welder is identified as 250050. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2221 – B – L2c – S – 2.

Weld joint # 018 located on Longitudinal Diaphragm LD3023 – 001. Welder is identified as 250050. ZPMC Quality Control (QC) Inspector is identified as Yang Qing Feng. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2221 – B – L2c – S – 2.

BAY 5

This QA Inspector observed the following work in progress:

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

Flux Core Arc Welding (FCAW):

Weld joint # 005 located on Traveler Rail 11TR3 – 004. Welder is identified as 215078. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 009 located on Traveler Rail 10TR2 – 002. Welder is identified as 066239. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

Weld joint # 014 located on Traveler Rail 11TR6 – 001. Welder is identified as 250353. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2232 – Tc – U5 – F.

Weld joint # 012 located on Traveler Rail 10TR2 – 009. Welder is identified as 205390. ZPMC Quality Control (QC) Inspector is identified as Zhong Chong Biao. The welding variables recorded by QC appeared to comply with the WPS – B – T – 2132.

BAY 6

The following Non Destructive Testing (NDT) inspection carried out as per the ZPMC submitted Notification No. 004798

Visual Inspection Testing

This QA inspector performed VT of the area previously tested and accepted by ZPMC Quality Control personnel. The member is identified as Tower Component. The identified component reviewed as follows:

WEST TOWER LIFT 2 STRUT PLATE

1. WD1 – A305 – 65M – 4

Magnetic Particle Testing (MT)

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

WEST TOWER LIFT 2 STRUT PLATE

1. WD1 – A305 – 65M – 4 – 10~55; 1B; 8B; 59

Ultrasonic Testing (UT)

This QA inspector performed UT of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an UT report for this date. The member is identified as Tower Component. The weld designations reviewed are as follows:

WEST TOWER LIFT 2 STRUT PLATE

1. WD1 – A305 – 65M – 4 – 1A; 7A; 7B; 9A; 9B

This QA Inspector observed the following work not in compliance:

During random 10% verification Ultrasonic Testing (UT) on Complete Joint Penetration (CJP) T- joint on Tower

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

Strut, this Quality Assurance Inspector (QA) discovered the following:

One (1) Class "A" non conforming longitudinal indication measuring approximately 30 mm in length.

The weld designation is identified as WD1-A305-65M-4-10B.

The CJP weld is joining web to flange identified as A305 (SPCM) to P266.

The member is located in Bay 6.

The indication is in an area previously tested and accepted by ZPMC QC UT technicians.

The Notice of Witness Inspection Number (NWIT) is 4798.

OTHER DETAILS:

Material thickness is 28 mm.

The discontinuity rating is +6, Class "A" reject

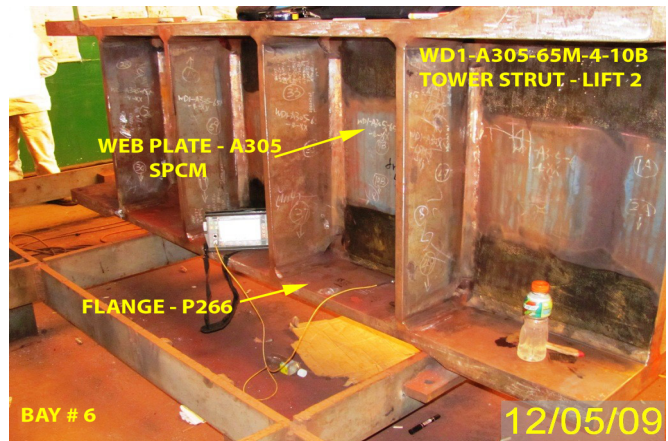
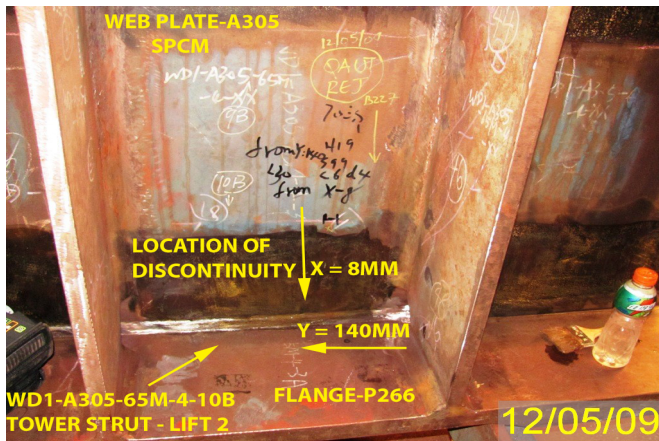
Depth of the discontinuity from face A is approximately 20 mm

Applicable reference: AWS D1.5-2002, Section 6, Table 6.3. specifies for material thicknesses 20mm through 38mm, a decibel (db) indication rating of 8 db or less shall be categorized as a Class A (large flaws) and any indication in this category shall be rejected (regardless of length).

This QA notified ZPMC QC identified as Mr. Sun Zi Wang and ABF inspector identified as Mr. Zhang Hui Long of the above issue and that an incident report will be generated.

See attached photos:

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No Relevant Conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang - 15000422372, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

Inspected By: Kumar,Sandeep

Quality Assurance Inspector

Reviewed By: Hall,Steven

QA Reviewer